AMENDMENTS TO THE CLAIMS

Claims 1-14 (Cancelled.)

15. (Currently Amended) A method ~~for~~ of forming a semiconductor circuit in a semiconductor material ~~of a first conductivity type, the semiconductor circuit~~ having a first ~~channel~~ region of a first conductivity type, a second ~~channel~~ region of a second conductivity type, and a third ~~channel~~ region of the second conductivity type, the method comprising the steps of:

implanting a first dopant into the first ~~channel~~ region and the second ~~channel~~ region ~~to add a channel dopant concentration to the first channel region and a channel dopant concentration to the second channel region, the first and second channel dopant concentrations being substantially equal~~; and

~~forming a layer of first oxide on the first channel region and a layer of second oxide on the second channel region;~~

~~forming a layer of first polysilicon on the layer of first oxide and a layer of second polysilicon on the layer of second oxide; and~~

~~etching the layer of first polysilicon to form a first gate on the first region and the layer of second polysilicon to form a second gate on the second region, the first gate having a length 0.3 to 0.8 as long as a length of the second gate~~

implanting a second dopant into the second region and the third region.

16. (Currently Amended) The method of claim 15 ~~wherein~~ and further comprising the steps of:

forming a layer of first oxide on the first region;

forming a layer of second oxide on the second region and the third region, a thickness of the layer of first oxide ~~is substantially equal to~~ being greater than a thickness of the layer of second oxide.

17. (Currently Amended) The method of claim 16 and further comprising the steps of:

~~implanting the first channel region and the third channel region to add a region dopant concentration to the first channel region and a region dopant concentration to the third channel region, a dopant concentration in the first channel region being equal to the channel dopant concentration and the region dopant concentration, a dopant concentration in the second channel region being equal to the channel dopant concentration, and a dopant concentration in the third channel region being equal to the region dopant concentration;~~

~~forming a layer of third oxide on the third channel region, the layer of third oxide being thicker than the layer of second oxide;~~

~~forming a layer of third polysilicon on the layer of third oxide; and~~

~~etching the layer of third polysilicon to form a third gate on the third region~~

forming spaced apart first source and drain regions of the second conductivity type in the first region;

forming spaced apart second source and drain regions of the first conductivity type in the second region; and

forming spaced apart third source and drain regions of the first conductivity type in the third region.

18. (Currently Amended) The method of claim 17 ~~and further comprising the steps of:~~

~~implanting the first channel region, the third channel region, and a fourth channel region to add a blanket dopant concentration to add a blanket dopant concentration to the first channel region, a blanket dopant concentration to the third channel region, and a blanket dopant concentration to the fourth channel region, a dopant concentration in the first channel region being equal to the channel dopant concentration, the region dopant concentration, and the blanket dopant concentration, a dopant concentration in the second channel region being equal to the channel dopant concentration and the blanket dopant concentration, a dopant~~

~~concentration in the third channel region being equal to the region dopant concentration, and a dopant concentration in the fourth channel region being equal to the blanket dopant concentration;~~

~~forming a layer of fourth oxide on the fourth channel region, the layer of third oxide being thicker than the layer of fourth oxide;~~

~~forming a layer of fourth polysilicon on the layer of fourth oxide; and~~

~~etching the layer of fourth polysilicon to form a fourth gate on the fourth region~~

wherein:

the semiconductor material further includes a fourth region of the first conductivity type, and

the second implanting step includes the steps of:

implanting a dopant into the second region and the third region; and

implanting a dopant into the second region, the third region, and the fourth region.

19. (New) The method of claim 18 and further comprising the step of forming spaced apart fourth source and drain regions of the second conductivity type in the fourth region.

20. (New) The method of claim 17 wherein:

the semiconductor material further includes a fourth region of the first conductivity type, and a fifth region of the first conductivity type, and

the second implanting step includes the steps of:

implanting a dopant into the second region, the third region, and the fourth region; and

implanting a dopant into the second region, the third region, the fourth region, and the fifth region.

21. (New) The method of claim 15 wherein the first dopant and the second dopant have a same conductivity type.

22. (New) The method of claim 17 wherein the first dopant and the second dopant have a same conductivity type.

23. (New) The method of claim 16 and further comprising the steps of:

forming a layer of polysilicon on the layer of second oxide; and

etching the layer of polysilicon to form a first gate over the second region and a second gate over the third region, the first gate having a length that is 0.3-0.8 as long as a length of the second gate.

24. (New) The method of claim 16 wherein:

the semiconductor material further includes a fourth region of the first conductivity type,

the fourth region is implanted when the first region is implanted;

the layer of first gate oxide lies over a portion of the fourth region; and

a layer of third gate oxide lies over a portion of the fourth region, the layer of third gate oxide being thinner than the layer of first gate oxide.

25. (New) The method of claim 24 wherein:

the semiconductor material further includes a fifth region of the first conductivity type, a sixth region of the first conductivity type, and a seventh region of the second conductivity type,

the second implanting step includes the steps of:

implanting a dopant into the second region, the third region, and the fifth region; and

implanting a dopant into the second region, the third region, the fifth region, the sixth region, and the seventh region.

26. (New) The method of claim 16 wherein:

the semiconductor material further includes a fourth region of the first conductivity type; and

the fourth region is implanted when the second region and the third region are implanted at a same time.